POWERTECH

Portable Fridge/Freezer

User Manual

GH1600 – 30L

GH1602 – 40L

GH1604 – 50L

Congratulations on your purchase of a Powertech portable fridge/freezer. Please take the time to read this user manual in full and familiarise yourself with the features and operating of this unit to ensure many years of reliable service with ice cold beverages and crisp, fresh food on all your adventures.

Features

- Danfoss (SECOP) BD35F compressor and genuine Danfoss control module – the world's most reliable mobile cooling system
- World leading electronic technology, with high efficiency and low energy consumption
- Multi-voltage compatible, working on either 12VDC/24VDC, or 240VAC
- Automatic low voltage battery protection

Contents in box

- Powertech portable fridge/freezer unit
- Food basket with removable divider
- DC power input cord
- AC power input cord
- Detachable carry handles/tie down points and tool

Optional accessories

- Heavy duty insulated cover
- Powertech dual battery isolators

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Product safety

- Do NOT touch exposed wires with your bare hands, especially when operating from 240VAC mains power
- It is dangerous to touch the plug or power input panel with wet hands
- When operating the refrigerator in a vehicle or boat, ensure that the power supply circuit is appropriately sized and fused
- The installation of AC power sources in a vehicle, trailer, caravan, or marine vessel should be carried out by a qualified person
- Ensure the correct power supply is connected
- Do not immerse in water
- Do not place any electrical devices inside the refrigerator
- Only qualified personnel are to perform servicing, contact your agent for information

General notes and operating tips

Always provide good ventilation to your Powertech Portable fridge/freezer, especially around the rear section where the compressor is situated. Allow an air gap of at least 200mm around the rear of the unit and approximately 100mm gap to the right hand side (where the ventilation slots are on the fridge body).

Avoid humidity inside the refrigerator: humidity inside the appliance can form frost and impair cooling, therefore defrost regularly.

Never clean the refrigerator under running water or in a dishwasher.

Avoid placing the refrigerator near a heat source as this will impair cooling performance and efficiency.

Always place the refrigerator on a flat surface away from edges.

When installing the unit in a vehicle or boat, ensure it is adequately secured.

REMEMBER: to maximise the efficiency of the refrigerator, avoid opening the lid too often, and keep the fridge reasonable well filled, but not over filled.

Power connections

There are provisions for both 12/24Vdc power input and 240VAC mains power input at the rear of the unit, allowing for operation on either DC or AC power sources. Both AC and DC power sources can be connected at the same time, the unit will automatically revert to 240VAC mains power as the priority.

The refrigerator unit must always be connected to an adequate power supply and DC connections must always be fused and wired with appropriately sized cable to avoid excess voltage drop. See table below for recommended cable sizing from battery to fridge:

Cable Size		Max Cable Length 12V	Max Cable Length 24V
mm2	AWG		
2.5	14	2.5m	5m
4	12	4m	8m
6	10	6m	12m
10	8	10m	20m

Low voltage battery protection

This unit has an automatic low-voltage battery protection feature that will automatically switch off the compressor if the DC supply voltage drops below the Cut-Out level, and will automatically re-start operation when the DC supply voltage comes back up to the Cut-In level. See table below:

Battery Protection	12V Cut-Out	12V Cut-In	24V Cut-Out	24V Cut-In
LOW	10.2V	11.2V	21.6V	23.0V
MED	10.7V	11.7V	22.6V	24.0V
HIGH	11.7V	12.7V	24.6V	26.0V

NOTE: If your refrigerator is cutting out prematurely, it could be due to the low voltage protection being set too high, or your DC supply

wiring is not suitable enough to carry the current required. Check supply wiring suitability and consider adjusting the battery protection switch at the rear of the unit accordingly.

Power switch

Temperature display

Running mode

switch

Operation

Eco mode indicator

Max mode indicator

Temperature controls

Temperature control range: -18ºC ~ 10ºC

Temperature display range: -20ºC ~ 45ºC

To operate, plug in the DC or AC power cord to the unit and connect the cord to a suitable power supply. Press the ON/OFF power switch to turn the unit on and the temperature display panel will illuminate and display the current temperature inside the refrigerator.

Press the ▲ and ▼ buttons to set your desired fridge temperature, ▼will reduce the temperature and ▲ will increase the temperature, whilst the temperature display will show what your current set temperature is. Once the display shows your desired temperature, don't press any buttons and after 3 seconds the display will flash and the unit will beep to confirm your setting. Pressing both ▼ and ▲ at the same time will switch the display from ºC to ºF.

Pressing the ECO/MAX running mode button will toggle the operating mode between ECO and MAX operating modes, with the indicators lighting up according to which mode is currently selected.

> **ECO:** This mode reduces power consumption and is best used once the fridge has cooled down to operating temperature
>
> **MAX:** Best used to cool down the internal temperature of the fridge rapidly, however this mode will consume more power.

NOTE: If power is lost, the refrigerator will automatically re-start when power is restored.

Cleaning & maintenance

Before cleaning, the power should always be switched off and disconnected.

Clean the unit inside and out with a damp cloth. For stubborn dirt, using some sodium bicarbonate dissolved in lukewarm water may be used.

Never use abrasive products, detergents or soap. After washing, rinse with clean water and dry carefully.

When storing the unit for a long period of time, do NOT fully close the lid. This will prevent mould and odours.

Troubleshooting

If the unit will not turn on:

- Check the power supply (voltage may be too low)
- Check all connections from battery to fridge
- Check the fuse
- Check the unit is turned ON

If contents of the fridge are freezing:

- The temperature has been set too low

Poor refrigeration performance:

- Too much food has been put inside the unit

- Temperature of the food put inside the fridge is too high
- Lid is not closed properly
- Lid seal is damaged
- There is poor ventilation around the fridge (see info on page 4)
- Ambient temperature is very high
- Temperature is not set correctly

There is a “water flow” type of noise from inside the unit:

- This is normal, caused by the flow of refrigerant

There is a noise from the unit:

- Unit is not on a flat level surface
- Check for vibrations in surrounding objects

Technical data

Specification	GH1600	GH1602	GH1604
Internal Capacity	30L	40L	50L
Input voltage	12/24VDC, 240VAC 50Hz		
Temperature control range	-18ºC ~ 10ºC		
Refrigerant	R134a		
Insulation	Polyurethane foam		
Avg. Current draw (12Vdc, 5ºC inside, 20ºC outside)	0.7A/hour (approx 17Ah/day)		
Weight	16kg	17kg	18.5kg
Dimensions (LxWxH)mm	585x350x380	585x350x490	585x350x530

Warranty

This Powertech portable fridge/freezer comes with a 5 year compressor warranty and a 3 year components warranty that commences from the date of purchase, under the following conditions:

- That all defects are attributable to material or production defects/errors and not improper use (warranty is void if the unit is run with supplementary parts or accessories from other manufacturers)

- The warranty claim is made within the warranty period (proof of purchase required)
- Warranty does not cover loss of contents of the fridge
- Any unit covered under warranty will be repaired or replaced at our discretion
- Units claimed under warranty will be returned to Rydalmere, NSW, for assessment. Where a false claim is made, the customer will bear costs of the unit being returned to them.
- Warranty does not cover parts such as fuses, connectors, plugs, handles, etc

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

To make any claim under warranty, please return with your unit and proof of purchase to your original place of purchase. Your original place of purchase will be able to handle the warranty claim with the distributor on your behalf.

Where this is not practicable, please contact Electus Distribution directly with the below contact details, and you will be advised on the best way your warranty claim can be handled

Australia – Contact ph. 1300 738 555, or email sales@electusdistribution.com.au

New Zealand – Contact ph. 0800 235 328, or email sales@electusdistribution.co.nz